

Appl. No. 09/461,110
Amdt. Dated June 21, 2005
Reply to Office action of April 21, 2005
Attorney Docket No. P10796-US1
EUS/J/P/05-3143

REMARKS/ARGUMENTS

Claim Amendments

The Applicant has amended claims 17-20, 23-29 and 31-32. Applicant respectfully submits no new matter has been added. Accordingly, claims 17-32 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 103 (a)

Claims 17-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heiman *et al.* (US 5,528,621 hereinafter Heiman) in view of Fox (US 5,765,172). The Applicant respectfully traverses this rejection and submits that neither Heiman nor Fox discloses or suggests (directly or inherently) at least the following features present in amended claim 17 (similar features can be found in independent claim 25: 1) one or more source units; 2) data groups within the databases; and 3) checksums of each group in the source unit compared to the checksums of each data grouping the base station. The Applicant respectfully directs the Examiner's attention to amended claim 17.

17. (Currently Amended) In a wireless telecommunications system, a method of synchronizing configuring data, which is utilized for proper operation of a base station, and is stored in a base station database with corresponding configuring data stored in one or more source units each unit having a database for storing configuring data, the base station database and the source unit databases each being arranged in a single data group or a plurality of data groups within each database, the method comprising the steps of:

calculating a reference checksum for each of the data groups in the base station database and the source unit database, wherein the data groups in the base station database correspond with the data groups in the one or more source units;

monitoring all base station data groups;

comparing a calculated checksum of each data group in the base station database to the reference checksum of each corresponding data group in the one or more source units; and

requesting a copy of the base station data group for which a mismatch is found, to be downloaded to the base station database from the corresponding one or more source units upon detecting a mismatch

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between the corresponding one or more source units data group's reference checksum and the corresponding calculated checksum. (emphasis added)

The Applicant's present invention discloses a method and arrangement for synchronizing "configuring" data between a source unit (for example a mobile switching center) and a receiving unit (base station). "Configuring" data is data that is downloaded to each base station comprising the parameters that enable proper operation of the base station. The configuring data from the source is treated as read-only data by the base station and each base station connected to the source unit should have the same configuring data (Page 6, lines 22-36). The source unit calculates a checksum of the current configuring data stored at the source unit. Data groups, which make up the configuring data stored at the base station, may be present on one or more source units and the base station may be receiving checksums from one or more source units (last para., pages 19-20) When the base station connects to a source unit, the source unit downloads the calculated checksums to the base station. The base station compares the source unit configuring data checksums to a calculated checksum of the base station configuring data. If the checksums are different, the source unit is requested to download a copy of the source's stored configuring data. If the checksums are the same, there is no request. Accordingly, if there is more than one data group, each group has a checksum and the source checksums are compared to the base station's configuring data groups (and the source checksums may come from one or more source units). The groups with mismatched checksums are automatically downloaded to the receiving unit and the matching checksums are ignored. This allows a source unit to quickly determine if a receiving unit that connects to the source unit has current configuring data.

The Heiman reference appears to disclose a communication system comprising remote, hand-held data gathering units (i.e., bar code readers) and a central computer. The hand-held remote units send data packets, such as bar code data, to base stations and the base stations send the packets to the central computer. The central computer is connected to the hand held units via the base stations. As noted in the Heiman abstract,

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and in contrast to the Applicant's invention, base stations cannot initiate communication to the remote, hand held units. The base stations only facilitate data transmission between the units and the central computer. Additionally, since the remote units and base stations are all synchronized to a repeating pseudo random sequence of frequencies, a hand held unit initiated transmission, elicits a response from a base station that is received only in a rigid time window, following the response from the base station.

What is different between the Applicant's Invention and the cited references are the use of a database comprising data groups, the ability to retrieve reference data groups from more than one source unit and communication is between a base station and one or more source units (which may for instance can be mobile switching center (MSC) or a radio network controller). The base station stores a base station configuration database that corresponds with a particular database in an MSC. Base station configuration data groups are identified in the MSC that correspond with data groups in the base station. When the checksums of the MSC (reference) data group(s) do not match, the reference data group is downloaded to the Base station and the data in the Base station is overwritten with the reference data group.

The base stations in the present invention are compared to the hand held units in the Heiman reference. As is well known in the art, base stations are typically not portable. Also, a base station is capable of receiving data transmissions from multiple remote units (mobile units). The base station in the Heiman reference is a conduit for passing data packets to and from a central computer and a hand held is assigned to a particular base station (Summary). The base station in the Applicant's Invention is the reason for checking the database in the source unit (i.e., MSC) to determine if the base station configuration data has changed. Furthermore, Heiman must maintain a rigid time window in which the hand held unit receives a transmission from the central computer. And the timing of the rigid time window is based on the time of a transmission from the hand held unit. This is not required in the Applicant's invention.

The Fox reference is cited for teaching verification of integrity of replication databases. Fox appears to disclose determining a checksum value for a first database

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and a checksum value is determined for each of a number of second databases. In the Fox Summary an advantage of the Fox invention is that of performing a checksum reference on an entire database. It appears that Fox utilizes a single checksum for a complete database.

In contrast to Fox, the Applicant's invention calculates checksums for data groups within both the reference database and the base station database and compares the corresponding data group checksums. This allows for downloading portions of the reference configuration database to the base station configuration database, which saves time and bandwidth.

The Applicant respectfully asserts that the cited references, individually or in combination, do not render obvious amended claim 17 and analogous claim 25. That being the case, the respective depending claims, which recite further limitations in combination with the novel elements of the independent claims, are also not obvious with respect to the cited references.

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CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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